

WHAT IS CLAIMED IS:

1. An LED lamp comprising
at least one LED chip having an emission peak wavelength of 400 nm to 490 nm, and
a wavelength converting portion including a phosphor for transforming the emission of the LED chip into light having a longer wavelength than that of the emission,
wherein the LED lamp further includes filtering means, of which the spectral transmittance is adjusted so as to minimize color shifting even if the amount of current supplied to the LED chip to make the LED chip produce the emission has changed.
2. The LED lamp of claim 1, wherein the spectral transmittance of the filtering means corresponds to a wavelength dependence of an inverse change rate.
3. The LED lamp of claim 2, wherein the spectral transmittance of the filtering means is relatively low in a wavelength subrange in which the inverse change rate is less than 100%.
4. The LED lamp of claim 1, wherein the filtering means is designed such that the spectral transmittance thereof becomes lower in at least a portion of the wavelength range of 400 nm to 545 nm than in the remaining visible radiation range.

5. The LED lamp of claim 4, wherein the filtering means is designed such that the spectral transmittance thereof becomes lower in at least a portion of a wavelength range, which is shorter than the emission peak wavelength of the LED chip, than in the remaining visible radiation range.

6. The LED lamp of claim 1, wherein in the wavelength range of 400 nm to 545 nm, the filtering means has a filtering ratio of 3% to 35%.

7. The LED lamp of claim 1, wherein the LED chip is mounted on a substrate.

8. The LED lamp of claim 7, wherein the LED chip is flip-chip bonded to the substrate.

9. The LED lamp of claim 1, wherein the wavelength converting portion is made of a resin.

10. The LED lamp of claim 9, wherein the wavelength converting portion has a cylindrical shape and covers the LED chip entirely.

11. The LED lamp of claim 7 or 10, wherein the wavelength converting portion is further covered with another resin.

12. The LED lamp of claim 1, wherein the filtering means is arranged so as to cover the wavelength converting portion.

13. The LED lamp of claim 1, wherein the filtering means is made of a resin.

14. The LED lamp of claim 1, wherein the wavelength converting portion and the filtering means are both made of the same resin and substantially no interface is present between the wavelength converting portion and the filtering means.

15. The LED lamp of claim 1, wherein the LED lamp has a card shape so as to be attachable to, or removable from, an illumination unit including a lighting circuit.